

REHABILITATING CRIMINAL JUSTICE POLICY AND PRACTICE

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For over 30 years, criminal justice policy has been dominated by a “get tough” approach to offenders. Increasing punitive measures have failed to reduce criminal recidivism and instead have led to a rapidly growing correctional system that has strained government budgets. The inability of reliance on official punishment to deter crime is understandable within the context of the psychology of human conduct. However, this knowledge was largely ignored in the quest for harsher punishment. A better option for dealing with crime is to place greater effort on the rehabilitation of offenders. In particular, programs that adhere to the Risk-Need-Responsivity (RNR) model have been shown to reduce offender recidivism by up to 35%. The model describes: a) who should receive services (moderate and higher risk cases), b) the appropriate targets for rehabilitation services (criminogenic needs), and c) the powerful influence strategies for reducing criminal behavior (cognitive social learning). Although the RNR model is well known in the correctional field it is less well known, but equally relevant, for forensic, clinical, and counseling psychology. The paper summarizes the empirical base to RNR along with implications for research, policy, and practice.

Keywords: deterrence, offender rehabilitation, offender risk, criminogenic needs

Out of step in relation to the crime rate decreases, the incarceration rate continues to increase in the United States. From 1992 to 2007, the U.S. incarceration rate grew from 505 per 100,000 to an estimated 756 per 100,000 (Walmsley, 2009). One out of 100 adults is behind bars in the United States with one in 15 African-American men and 1 in 36 Hispanic men in prison (Pew, 2008). Over five million adults are under some form of community supervision (Glaze & Bonczar, 2007). On the youth side of the criminal justice system, nearly 2.2 million juveniles were arrested in 2007 (Puzzanchera, 2009). The United States now has approximately 20% of the world’s prison population (Walmsley, 2009). “Getting tough” on crime has become the major criminal justice policy in America.

Canada is a country in which the pursuit of rehabilitation is formally part of sentencing and correctional policy. Yet even in Canada, the physical conditions of confinement in federal prisons are being “hardened” by way of more punitive and more restrictive conditions (Sapers, 2009). As in the United States, the increase in punishment is not a reflection of increased crime in the community at large. Rather, it is an attempt to prepare for the overcrowding expected because of proposed “tough-on-crime” laws deliberately intended to increase incarceration rates and the length of incarceration (Tibbets, 2009, reporting on statements by the

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Canadian Correctional Investigator on the occasion of the release of his most recent annual report). It appears that currently Canada values the "get tough" policy of the United States.

Along with the huge prison and community offender populations come a myriad of associated problems. Many prisons are overcrowded, prison conditions have deteriorated, inmates being released from prison are returning to their old neighborhoods impacting on the local economies and some state corrections budgets rival the budgets for higher education (Scott-Hayward, 2009; Wood & Dunaway, 2003). Incarceration and community sanctions are thought to serve justice and deter crime. The evidence however, suggests the contrary.

In this paper we assess the potential of "get tough" and "rehabilitative" approaches to crime prevention in the context of criminal justice. The fact is that rehabilitative efforts may be delivered under justice conditions that are less supportive or more supportive of those efforts. Our underlying approach suggests that crime prevention efforts that ignore, dismiss, or are unaware of the psychology of human behavior are likely to underperform in regard to successful crime prevention. As we will show, the psychology of human behavior has much to say about the effectiveness of punishment and the effectiveness of human, social, and clinical services. Our position does not deny the value or appropriateness of applications of the principles of justice, law, and the broader social sciences, such as sociology, anthropology, and political-economy. However, once again, adherence with such principles will not enhance crime prevention unless the applications are in touch with empirically validated psychological principles of behavioral influence and behavior change.

We examine the failure of get tough policies on criminal recidivism briefly and then turn to the major focus of the paper—the rehabilitation of offenders. Our message is that the failure of punishment approaches and the problems within early efforts to demonstrate treatment effectiveness were both based on a failure to attend to the psychology of human behavior. In particular, we show that interventions based on some core principles derived from general personality and cognitive social learning perspectives of criminal behavior can result in significant reductions in criminal recidivism. We conclude with a call for renewed efforts to expand treatment programs and align criminal justice policies to these principles as an alternative to the get tough strategy for dealing with criminal behavior.

The Rise of "Getting Tough" and the Decline of Rehabilitation

In the 1970s, the "get tough" approach to criminal justice began to replace rehabilitation as an underlying ideal of sentencing and corrections. Two sets of views became prominent. One set was that of "just deserts" as promoted by von Hirsch (1976). The other was promotion of the idea that studies of rehabilitation had failed to demonstrate that programming could reduce reoffending (Martinson, 1974).

The "just desert" idea included the belief that rather than crime prevention the purpose of sanctioning was the delivery of a penalty whose severity was proportionate to the harm done by the offender. Incapacitation, specific deterrence, general deterrence, and rehabilitation were not simply irrelevant in the pursuit of

enhanced justice, but perhaps contributed to injustice by interfering with the delivery of just desert. On the other hand, the powerful notions of deterrence were not rejected by Martinson in 1974. Martinson went on to write "it is possible that there is indeed something that works . . . that might be made to work better—something that deters rather than cures" (Martinson, 1974, p. 50).

While rehabilitation was rejected, punishment was promoted in two ways. First punishment was rendered noble through the inherent virtue of just desert. Second, the possibility remained that severe punishment might just deter even if cures were impossible. "Getting tough" on criminals became a major justice policy in America. No matter that Martinson (1979) modified his earlier evaluation of the effectiveness of rehabilitation, the "penal harm" movement (Clear, 1994) was underway and the employment of punishment continues to grow.

Over the past 35 years, the trend in dealing with criminal offenders became increasingly harsh and punitive. The message was clear: offenders were not to be mollycoddled. The U.S. Parole Commission and many states abolished their paroling authorities. Instead, parole was replaced with "truth-in-sentencing" legislation (Holt, 1998) and "three strikes and you're out" laws (Turner, Greenwood, Chen, & Fain, 1999). Boot camps and "Scared Straight" programs sprung up throughout the United States and abroad. There were even calls to make probation as "punishing as prison" (Erwin, 1986, p. 17). The rehabilitation of offenders, an important activity for many correctional psychologists, was devalued in favor of the "get tough" approach for dealing with offenders.

The accumulating evidence is that the retribution movement has been a disastrous failure. Sentencing guidelines and the various truth-in-sentencing laws that require a minimum sentence to be served before release have resulted in longer sentences and more crowded prisons (Wood & Dunaway, 2003). The three strikes laws further compounded the problem of prison growth without any evidence that prison sentences reduce recidivism (Doob & Webster, 2003; Smith, Goggin, & Gendreau, 2002; von Hirsch, Bottoms, Burney, & Wikström, 1999). The tough new sanctions of boot camps, electronic monitoring, and Scared Straight programs that expose at-risk young offenders to prison life have had either a negligible or detrimental impact on recidivism (MacKenzie & Armstrong, 2004; Petrosino, Turpin-Petrosino, & Finckenauer, 2000; Renzema & Mayo-Wilson, 2005).

All of this has caused a tremendous strain on state economies, with 22 states cutting corrections budgets for fiscal year 2010 (Scott-Hayward, 2009). Only Medicaid has out-paced corrections budgets (Stemen, 2007) and, in 2008, it was estimated that state budgets for corrections were in excess of \$52 billion (Pew, 2009). The incarceration and re-entry of large numbers of adults has a number of less visible costs. Many prisons are far removed from the neighborhoods where offenders reside. For example, in New York State, almost all of the prisons are located upstate with 60% of the prisoners coming from the poorest borough of New York City. Many of these neighborhoods have high concentrations of offenders who are sent to upstate prisons at an annual cost of over \$30,000. It has been estimated that Brooklyn alone has 35 blocks where the costs of imprisonment exceeds \$1 million per block (Gonnerman, 2004). The neighborhood of Brewer Park, Detroit has an annual cost of \$2.9 million (Pew, 2009). Not only is there a significant cost in imprisoning people from poor neighborhoods, but

additional financial hardships are placed upon the families of offenders and the communities where they reside. A family may lose a breadwinner and even during incarceration, the family may still continue to support the offender. Offenders released from prisons return to their communities with poor job prospects, and their idle presence on the streets discourage the frequenting of local businesses. This in turn threatens business success, thereby eroding the tax base for many cities (Clear, 2008).

Finally, proponents of the just deserts model (von Hirsch, 1976) have argued that it does not matter if punishment deters crime. What matters is that punishment should fit the crime, thereby serving justice. In theory, this is an admirable goal. In practice, the goal of proportional punishment that is delivered swiftly and with certainty is difficult to achieve. Three-strikes laws and other mandatory sentencing laws have led to some bizarre applications. For example, one offender received 27 years for attempting to steal property with a value of \$90 (Austin, Clark, Hardyman & Henry 1999); another received life without parole for possession of 5.5 ounces of cocaine (Currie, 1993).

Anecdotes aside, there are fears of injustice on a much larger scale. It appears that African Americans have been particularly hit hard by the tougher sentencing laws. Blacks comprise approximately 13% of the American population, but account for 41% of the prison population (West & Sabol, 2008). Tonry and Melewski (2008) carefully analyzed a range of crime trends and criminal justice processing over a 50-year span. A number of troubling findings emerged. Between 1980, when mandatory imprisonment for certain drug offences was introduced, and 2006, the rate of incarceration for Blacks was nearly four times higher than for Whites. The number of Blacks on death row has not changed in the last twenty years despite the fact that the homicide rate among Blacks has decreased. Drug use has remained steady, but arrest rates are higher for African Americans. Blacks are twice more likely to be imprisoned for robbery than Whites. The list goes on—the war on drugs and crime verges on being a war on race. The reasons for the get-tough movement may vary, but it is now abundantly clear that it is very expensive and a failed justice policy with regard to crime prevention. Understanding why it failed can be found in the psychology of punishment.

Why Did Get Tough Fail? A Psychological Explanation

To answer the question as to why the get tough criminal justice policy failed, one does not need to look far. The answer resides in the psychology of punishment. Psychologists have been studying punishment under well-controlled laboratory conditions with animals and humans for nearly a hundred years (e.g., Hoge & Stocking, 1912). During the course of that century of research, much has been learned and a review of this body of knowledge would quickly demonstrate the folly of punishment as being the backbone of criminal justice policy.

The effectiveness of punishment in suppressing behavior depends upon some very specific conditions. As summarized by Andrews and Bonta (2006), the most important conditions for punishment to “work” and our commentary with respect to criminal justice applications are as follows:

1. Punishment must be at maximum intensity. Lower levels of intensity may lead to tolerance and temporary effects. Applying very intense levels of

punishment for a first offence is unlikely unless it is a very serious offence (e.g., murder). It would be hard to imagine, for example, a sentence of 10 years for an individual's first theft or first assault, as it offends our sense of justice and fairness.

2. Punishment must be immediate. A delay between the behavior and the punishment provides opportunities for other behaviors to be reinforced. An offender who commits a criminal act is likely not to be apprehended (thereby, creating opportunities for further criminal behavior that is rewarded) and, if caught, may be released until trial (once again, opportunities for further reinforced criminal behavior).
3. Punishment must be consistently applied. Related to #2, a failure to punish provides opportunities for undesirable behaviors to be rewarded. People are always behaving, and rewarding or punishing consequences follow. Unless the offender is punished for each and every criminal action, which is highly unlikely, criminal behavior will be rewarded.
4. Opportunities to escape or access alternative rewards must be blocked. Obviously, no one likes to be punished. When punished, one of two things may result: Escape behavior ensues that, if successful, serves to reinforce the escape behavior and maintain the early behavior that first led to punishment (e.g., the bank robber who escapes from prison only to rob again). Second, in order to avoid punishment the person may seek rewarding alternatives. When considering a specific criminal act that is likely to be punished, the alternative may be another form of criminal behavior that was successful in the past. For high-risk offenders with a large antisocial behavioral repertoire, punishing one antisocial type of behavior (e.g., assault) may only be replaced with another (e.g., stealing) unless the antisocial alternative is unavailable.

All of the above conditions consider only how punishment needs to be delivered to suppress behavior. They do not address characteristics of the person that may interact with the application of punishment. In situations where punishment is not delivered with immediacy and certainty, it may still be effective with certain types of people. For example, those who are future-oriented and evidence good self-monitoring and regulation skills can make the connections between the behavior and the negative consequences that may occur days, weeks, or months later. However, many offenders are impulsive (Gottfredson & Hirschi, 1990) and underestimate the chances of being punished (Piquero & Pogarsky, 2002). There is even some evidence that punishment can lead to increased offending through operation of the "gambler's fallacy." That is, "if I was punished now then it is unlikely that I will get caught and be punished again" (Pogarsky & Piquero, 2003). In addition, applying "maximum" punishment can have undesired consequences ranging from learned helplessness (Seligman, 1975) to retaliatory aggression (McCord, 1997). The long and short of all of this is how can one possibly expect that a policy centered on punishment can reduce criminal behavior?

The Resurgence of Offender Rehabilitation

Although Martinson's report may have had a role to play in the ascendancy of the get tough movement and the nothing works view of rehabilitation, it did not mean that practitioners and researchers stopped in their efforts to develop and evaluate offender treatment programs. Despite the punitive policies evident in America, there was an explosion in the number of treatment evaluations in the United States and other countries that followed Martinson (1974). It was as if the nothing works conclusion became a rallying cry for the rehabilitationists. Almost immediately, Martinson's analysis and conclusions were challenged (Palmer, 1975). Subsequent reviews of the literature not only found a large increase in the number of new experimental and quasi-experimental studies (e.g., 95 were published between 1973 and 1978) but also reached more positive conclusions on the effectiveness of offender treatment (Gendreau & Ross, 1987; Ross & Gendreau, 1980).

There were two significant developments that appeared in the 1980s that began to consolidate the conclusion that treatment can be effective in reducing recidivism and significantly so. First, there was the development of meta-analytic techniques to summarize in a quantitative fashion the large treatment literature that was estimated to number close to 500 studies by 1990 (Andrews & Bonta, 2006). In 1989, Lipsey () reviewed 400 treatment studies of juvenile delinquents, yielding 443 effect size estimates. He found that treatment, on average, had a 10% reduction on recidivism. However, when controls for methodological (e.g., sample size, attrition) and treatment variables (e.g., duration, evaluator involvement) were introduced, there was a 30% reduction in recidivism. Since Lipsey's (1989) landmark meta-analysis, 40 meta-analyses have confirmed the overall effectiveness of offender treatment (McGuire, 2004).

The second major development has been in the theory of a psychology of criminal conduct. For years, explanations of criminal behavior were dominated by sociological criminology, which located the cause of crime in the social structure and was more interested in explaining aggregated crime rates than individual criminal behavior (Andrews & Bonta, 1994). In 1990, Andrews and colleagues (Andrews, Bonta, & Hoge, 1990) urged practitioners, researchers and policy-makers to "rediscover" psychology in order to enhance correctional treatment effectiveness. Their psychology is a social learning perspective that assumes that criminal behavior is learned within a social context. Social support for the behavior and cognitions conducive to criminal behavior are central factors, as are criminal history and a constellation of antisocial personality factors (e.g., impulsiveness, thrill-seeking, egocentrism). Other factors of moderate relevance include family/marital functioning, substance abuse, and indicators of social achievement (e.g., education and employment). Andrews et al. (1990) proposed the following three principles at the core of effective programming:

1. Risk principle: Direct intensive services to the higher risk offenders and minimize services to the low risk offenders.
2. Need principle: Target criminogenic needs in treatment.

3. Responsivity principle: Provide the treatment in a style and mode that is responsive to the offender's learning style and ability.

The risk principle speaks to *who* should be treated. Instead of the low-risk offender, or better known in the general psychotherapy literature as the YAVIS client (young, attractive, verbal, intelligent, and successful; Schofield, 1964), it is the higher risk offender who benefits the most *if* the treatment is of sufficient intensity (estimates of treatment dosage for higher risk offenders range from 100 hours [juveniles; Lipsey, 1999] to 300 hours [adults; Bourgon & Armstrong, 2005]). In fact, some studies show that treatment delivered to low-risk offenders actually increases the likelihood of a negative outcome (Andrews & Dowden, 2006). It is best to keep the low-risk client away from higher-risk clients who represent the majority in many treatment programs.

The risk principle presupposes that the assignment of cases to treatment is based on a reliable and valid assessment of risk. The evidence clearly shows that actuarial approaches provide better predictive accuracy than unstructured clinical judgment in general (Ægisdóttir et al., 2006; Grove, Zald, Lebow, Snitz, & Nelson, 2000) and this conclusion holds equally in the assessment of offender risk for further crime (Andrews, Bonta, & Wormith, 2006; Bonta, Law, & Hanson, 1998; Hanson & Morton-Bourgon, 2009). Structured clinical judgment instruments that specify the factors to be considered, but allow the evaluator to make the overall assessment of risk, perform better than unstructured clinical judgment but not as well as the more structured actuarial risk tools (Andrews et al., 2006; Hanson & Morton-Bourgon, 2009).

Actuarial assessments of risk can be described as consisting of predominately static risk factors (e.g., various criminal history variables, history of drug abuse) or predominately dynamic risk factors (Bonta & Wormith, 2007). Dynamic risk factors, usually referred to as criminogenic needs, can change in both directions. For example, one can lose a job and one can find a job or one can develop friendships with other criminals or lose these friendships and replace them with prosocial friendship. Some scholars (e.g., Harris & Rice, 2003) have argued that static risk factors are all that is needed and that dynamic risk factors add little to predictive validity. However, there is some evidence that combining the two sets of risk factors does bring some improvement (Andrews et al., 2006; Hanson & Morton-Bourgon, 2009). It is more important that the inclusion of dynamic risk factors in offender assessment relates to the need principle and offender rehabilitation.

The need principle describes *what* should be treated. The need principle makes a distinction between criminogenic and noncriminogenic needs. Offenders have many needs. Some are functionally related to criminal behavior (i.e., dynamic risk factors or criminogenic needs) and others have a very minor or no causal relationship to criminal behavior (i.e., noncriminogenic needs). For example, increasing an offender's self-esteem without regard to procriminal attitudes may result in a self-confident criminal (Wormith, 1984). Table 1 presents a few of the major criminogenic and noncriminogenic needs (please note that it is possible that some noncriminogenic needs may be shown in a functional analysis of an individual's behavior to be criminogenic). Criminogenic needs are dynamic risk factors and, most importantly, serve as the intermediate targets of change in

Table 1
Criminogenic and Noncriminogenic Needs

Criminogenic	Noncriminogenic
Procriminal attitudes (thoughts, values and sentiments supportive of criminal behavior)	Self-esteem
Antisocial personality (low self-control, hostility, adventurous pleasure seeking, disregard for others, callousness)	Vague feelings of emotional discomfort (anxiety, feeling blue and feelings of alienation)
Procriminal associates	Major mental disorder (schizophrenia, depression)
Social achievement (education, employment)	Lack of ambition
Family/marital (marital instability, poor parenting skills, criminality)	History of victimization
Substance abuse	Fear of official punishment
Leisure/recreation (lack of prosocial pursuits)	Lack of physical activity

rehabilitation programming. Of course, higher risk offenders will have more criminogenic needs, requiring not only more services (risk principle), but also a greater breadth of services.

As with the risk principle, the need principle also calls for an assessment of criminogenic needs. For this reason, actuarial risk instruments that include static and dynamic risk factors are preferable from a treatment perspective than risk instruments that consist largely of static factors (Bonta, 2002). Another important point to be drawn from Table 1 is that the seven criminogenic need domains presented are based on a general personality and cognitive social learning perspective of criminal conduct (see Andrews & Bonta, 2006 for a full presentation of the theoretical perspective). Together with criminal history, largely a static construct, and the criminogenic domains of procriminal attitudes, associates, and antisocial personality, represent what is referred to as the "big four" risk factors. The remaining criminogenic needs complete the "central eight" risk factors of criminal conduct.

A recent quantitative summary of eight meta-analyses by Andrews and Bonta (2006, p. 66) found non-overlapping 95% confidence intervals around the grand mean predictive validity (r) of the big four ($r = .26$, $CI = .22, .30$, $k = 24$), the moderate four risk/need factors from the central eight ($r = .17$, $CI = .13, .20$, $k = 23$) and minor risk/need factors ($r = .03$, $CI = -.02, .08$, $k = 16$). The minor set in this summary included personal emotional distress/psychopathology, lower class origins, fear of official punishment, and low verbal intelligence.

The third major principle, the responsivity principle, addresses the *how* of intervention. There are two aspects to the responsivity principle. First is general responsivity which speaks to the influence strategies of choice, namely, cognitive social learning practices. The general responsivity principle recognizes the importance of the therapeutic relationship (Ahn & Wampold, 2001; Wampold, 2007) but also adds that structured, cognitive behavioral intervention is an important component of effective correctional treatment. Second is specific responsivity, which individualizes treatment according to strengths, ability, motivation, per-

sonality, and bio-demographic characteristics such as gender, ethnicity, and age. The principle invites treatment planners to build on strengths and consider removal of any barriers to full participation in service, issues particularly important to minority cultural groups (Vasquez, 2007) and women (Bankoff, 1994). Specific responsivity calls for the matching of treatment to client characteristics, one of the hallmarks of all psychological treatments (Barlow, 2004; Kazdin, 2008).

Since the 1990 paper by Andrews and his colleagues, new studies have accumulated and the three core principles of effective treatment have also grown in number. In 2007, Bonta and Andrews (2007) have outlined 17 principles ranging from respect for the person to the organizational context for service delivery (e.g., services are more effective when delivered in the community as opposed to custodial and residential settings). Nevertheless, the three principles of risk, need, and responsivity are the core, and together have come to be known as the RNR model of offender rehabilitation.

The RNR Model and Effective Offender Rehabilitation

Specific support for the principles of effective treatment was found in a meta-analysis by Andrews et al. (1990). This review differed from Lipsey's earlier review (1989) in two important ways. First, the meta-analysis by Andrews, Zinger, et al. (1990) included studies of adult offenders and it was not limited to juvenile offenders. Second, and more important, the focus was on testing the RNR principles rather than uncovering the methodological characteristics of effective rehabilitation programs. It was hypothesized that program adherence to the three principles would be strongly associated with reduced recidivism. A review of 80 studies yielding 154 effect size estimates found a significant relationship between level of adherence to the RNR principles and reduced recidivism. Adherence to all three principles had a mean effect size (phi coefficient) of .30 whereas treatment programs that failed to attend to any of the principles actually showed an increase in recidivism ($\phi = -.06$). As expected, criminal justice sanctions (i.e., punishment) also failed to demonstrate reduced recidivism ($\phi = -.07$).

The initial findings on the importance of the RNR principles have subsequently been confirmed by a number of reviews. In 2006, Andrews and Bonta reported on the results from 374 tests of the effects of treatment and criminal justice sanctions. The mean effect size (r) for providing any type of human service was .12 (95% CI = .09, .14; $k = 273$) while for criminal justice sanctions the mean effect size was $-.03$ (CI = $-.05$, $-.03$; $k = 101$). If we apply Rosenthal's Binomial Effect Size Display, then delivering human service yields a 12 percentage-point difference between the treatment and the control group. In other words, if any criminal justice policy will work in reducing recidivism it is a treatment-based policy rather than a punishment-based policy.

Consistent with RNR, mean effect size increases directly with adherence to the human service principles of risk, need, and general responsivity. A four-level variable of RNR adherence ranges from "0" (not a human service program or a program not in adherence with any of risk, need, and general responsivity), through "1" (a human service program in adherence with one of RNR), "2" (adherence with two of RNR), and "3" (a human service program in adherence

with risk, need, and general responsivity). The correlation (r) of the four-level RNR adherence variable with effect size was .56; $k = 374$. Mean effect size (r) ranged from $-.02$ (95% CI = $-.05, -.00$, $k = 124$) at the "0" level of RNR adherence, through $.02$ ($-.01, .05$, $k = 106$) at level "1," and $.18$ (.14, .21, $k = 84$) at level "2," to $.26$ (.21, .31, $k = 60$) at level "3." If we analyze the results as a function of where the treatment was delivered, we see that the effectiveness of treatment is enhanced when the program is delivered in the community (Figure 1).

The RNR model appears to generalize across a variety of settings, criminal behavior, and offender subtypes. As shown in Figure 1, adherence to the RNR principles is associated with reduced re-offending in both community and custodial settings. Meta-analytic studies have found the principles to apply to youth (Andrews, Zinger et al., 1990; Dowden & Andrews, 1999a), women offenders (Dowden & Andrews, 1999b), and minorities (Andrews & Bonta, 2006; Andrews, Dowden, & Rettinger, 2001). Adherence to the principles in treatment programs also appear relevant to violent offending (Dowden & Andrews, 2000), prison misconducts (French & Gendreau, 2006), gangs (Di Placido, Simon, Witte, Gu, & Wong, 2006), and even sexual offending (Hanson, Bourgon, Helmus, & Hodgson, 2009).

The robustness of the RNR model is evident not only in its general applicability, but also fares well in comparison to other treatment interventions. Table 2 compares the effectiveness of offender treatment with criminal justice sanctions, police clearance rates, and a few medical interventions for serious health issues. When viewed in this light, offender rehabilitation programs based on the RNR principles are quite remarkable.

Future Directions for Policy and Practice

Robert Martinson's call for deterrence as a means to reduce criminal recidivism over 30 years ago contributed to the growth of the get tough movement in criminal justice policy. Reliance on punishment has been most salient in the United States, but many other countries around the world have been similarly influenced. The evidence in support of deterrence has been dismal. The dramatic growth in correctional populations is rapidly becoming financially unsustainable and many jurisdictions are returning to rehabilitation as a more effective option

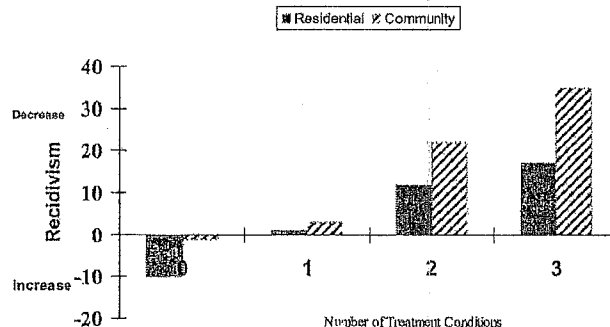


Figure 1. Adherence to the RNR principles by setting.

Table 2
A Sample of the Comparative Effectiveness for Selected Interventions

Intervention	Target	Mean effect size (<i>r</i>)
General psychotherapy	Child maltreatment	0.26
Psychological coping	Panic attacks	0.21
General psychotherapy	Youth depression	0.17
Offender treatment (RNR)	Recidivism	0.29
Medical interventions		
Aspirin	Cardiac event	0.03
Chemotherapy	Breast cancer	0.11
Bypass surgery	Cardiac event	0.15

Source: Andrews & Bonta, 2006; Clum, Clum, & Surls, 1993; Lipsey & Wilson, 1993; Skowron & Reinemann, 2005; Weisz, McCarty, & Valeri, 2006.

for managing offenders. At least with rehabilitation, there is solid evidence of its effectiveness.

The RNR model has had considerable impact within justice and corrections in Canada, the United Kingdom, Australia, New Zealand, and parts of the United States (Ogloff & Davis, 2004). In the current paper we provided a summary of the principles of RNR and the research on applications of RNR to offender programming and correctional policy. On the face of it, the RNR principles of effective correctional treatment are straight forward. Focus on people most likely to reoffend (why work intensively with low risk cases?). Target the factors actually associated with offending (why target irrelevant factors?) Use powerful influence strategies (why play around with weak strategies?). Unfortunately, in the "real world" of routine correctional practice, adhering to the principles is a challenge. For example, Bonta and his colleagues (Bonta, Rugge, Scott, Bourgon, & Yessine, 2008) found probation officers not following the risk principle, rarely attending to the major criminogenic needs of their clients, and hardly using cognitive-behavioral techniques of influence.

Unlike the general psychotherapy literature, where treatment appears as effective in routine clinical practice as it does in research demonstration projects (Shadish, Navarro, Matt, & Phillips, 2000) the same does not hold for correctional treatment. From meta-analytic findings (Andrews & Bonta, 2006), the mean effect size (*r*) for treatments in the everyday world even with full adherence to RNR was only .15 ($k = 10$) while demonstration projects showed a substantial mean effect size of .29. Demonstration projects tend to have the researchers closely involved in the development and sometimes, the delivery of the programs themselves, and they tend to be small scale (sample sizes usually less than 100). However, correctional systems deal with thousands of offenders and staff complements in the hundreds, if not thousands. The issue is one of treatment integrity.

Lowenkamp, Latessa, and Smith (2006) underscored the importance of program integrity in the deliver of RNR-based interventions. They analyzed the impact of halfway house programs in Ohio on recidivism as a function of how well they adhered to the RNR principles ($N > 6,000$). For programs with high treatment quality the difference in recidivism between the treatment and control group was 22 percentage points. For low quality programs the difference in

recidivism rates was 1.7 percentage points. From a policy perspective, the integrity of program delivery and the quality of services should be a major guidepost for the development of new programs, the modification of existing programs with an eye on improvements in quality, and may even be the basis of funding decisions. Poorly delivered and monitored interventions should either be required to change or have their financial support withdrawn.

There are a number of other policy and practice implications derived from the RNR model. First, low-risk offenders should have minimal contact with higher-risk offenders (Andrews, 2006). Sometimes low-risk offenders run an increased risk of recidivism when placed in situations where they are exposed to the antisocial modeling of higher-risk offenders. Policies can be written in adherence to the risk principle. For example, reporting requirements in a probation setting can be based on the offender's level of risk. Indeed, many jurisdictions already have policies in place where low-risk offenders are seen face-to-face only rarely, if at all. Furthermore, correctional administrators and staff may wish to consider the risk composition of group treatment programs, waiting rooms in probation and parole offices, and ensure that the various security levels of prison really match the risk of the incarcerated population. On the other extreme, policies should not permit the withdrawal of treatment services to the high-risk offender based on various "excuses" ("he is a psychopath and cannot change" or "violent offenders are not eligible for the program"). It is the higher-risk offender who may benefit the most from treatment.

Second, managers who accept the notion that RNR-based treatment is the more promising route to reduced recidivism need to ensure that staff is properly selected, trained, supervised and resourced to deliver the services. Staff should be selected partly on their ability and potential to build high quality relationships with a difficult clientele and then be given training that further enhances these skills. Training in cognitive-behavioral techniques should play as prominent a role in staff training as do the security and law topics in orientation courses for new staff. In addition, it is not only a matter of providing training in RNR practices, but also required is ongoing supervision and skill development. Refresher courses, feedback from experienced staff, and managerial encouragement of skill development need to be integrated into the correctional service.

The RNR model also has implications for the courts. Through their sentencing powers courts have a tremendous impact on offenders. Liberty can be curtailed and treatment mandated. Judges can divert low-risk offenders from prison settings and thus, minimize associations with higher-risk offenders (Andrews & Dowden, 2007). Judges can also give treatment conditions that match the offender's criminogenic needs rather than assigning generic conditions (i.e., take treatment as directed by the probation officer, avoid alcohol and drugs). In the emerging field of therapeutic jurisprudence, we are beginning to see studies supportive of the RNR model. Vieira, Skilling, and Peterson-Badali (2009) found that young offenders who had their criminogenic needs met by court mandated treatment services had lower recidivism rates than youths who did not have their needs addressed. Although not without controversy, Zinger (2004) has argued that judges' reliance on clinical judgment, rather than actuarial risk scales, may present a threat to public safety.

The RNR model is far from perfect and needs further refinement and clarifications. However, the facts remain that in our set of 374 tests of correctional

treatment 61% (230) failed to reach even level "2" in our measure of RNR adherence and only 16% (60) reached the level of adherence with each of risk, need, and general responsivity. In the field of forensic mental health, less than 1% ($n = 6$) of over 12,000 documents were outcome studies that actually dealt with mental health programs and also targeted criminogenic need (Morgan et al, 2007).

We would like crime prevention to become a legitimate and noble pursuit within health, education, and social service agencies. Ethicality, decency, and protection of the values and procedures of a liberal democracy are obvious concerns because a focus on public safety so often threatens civil liberties. Echoing Miller and Carroll (2006, p. 308) "successful interventions are not those that make a person's life more miserable but rather those that offer more rewarding alternatives." With such a perspective, crime prevention and correctional rehabilitation may come to be seen as being an expansive approach to work with offenders rather than a restrictive approach (Blackburn, 2004). RNR remains a work-in-progress and developments will enhance the multiple contributions of psychology to the understanding and management of criminal offending. Additional psychological contributions in the domains of assessment and crime prevention are welcomed at a time when the financial, human, and moral costs of official punishment have reached crisis proportions.

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